L10 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1
AN 1999:227926 CAPLUS
DN 130:229154
TI Method for and apparatus production of carbonyl halide
IN Freire, Francisco Jose; Keating, Kenneth Bernard; Sakata, Edward Kaoru
PA E. I. Du Pont de Nemours & Co., USA
SO U.S., 13 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5891319	A	19990406	US 1996-771496	19961223
PRAI	US 1996-771496		19961223		

AB Carbonyl halide is produced from carbon monoxide and halogen produced from the electrochem. conversion of anhydrous hydrogen halide. Both the oxidation of anhydrous hydrogen halide and the formation of carbonyl halide are carried out in the anode-compartment of an electrochem. cell. This reduces the equipment and thus the capital investment necessary for carrying out these reactions. Moreover, no catalyst is needed to form halogen and subsequently make carbonyl halide, as in the prior art. In addition, the health hazards associated with making a carbonyl halide, such as phosgene, at high temps. from chlorinated hydrocarbons with atmospheric oxygen are virtually eliminated. Furthermore, the halogen produced as a result of the oxidation of anhydrous hydrogen halide are dry, thereby eliminating the need for a preheater before the halogen is reacted with carbon monoxide. Thus, with the present invention, carbonyl halide may be produced more easily, more safely and more inexpensively as compared to prior art processes.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:457916 CAPLUS
DN 131:75256
TI Process and catalysts for preparing dichlorofluoroacetyl halides from trichloroacetyl halide
IN Gavezotti, Piero; Abusleme, Julio A.; Tortelli, Vito
PA Ausimont S.p.A., Italy
SO Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI EP 928783	A1	19990714	EP 1998-124605	19981223
EP 928783	B1	20020828		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
IT 1298091	B1	19991220	IT 1998-MI13	19980109
US 6166252	A	20001226	US 1999-226121	19990107
JP 11263744	A2	19990928	JP 1999-4103	19990111
PRAI IT 1998-MI13	A	19980109		

AB Dichlorofluoroacetyl fluoride (I) is prepared in high yield and selectivity by: (A) **fluorination** with hydrofluoric acid of trichloroacetyl halides (e.g., trichloroacetyl chloride) in a fixed or fluidized tubular-bed reactor filled with **fluorination** catalysts (e.g., Cr2O3) and having a temperature profile between the inlet of the reactants and the outlet of the reaction products of 175-275°; (B) distillation of the reaction products with trichloroacetyl fluoride recycle and recovery of a I-HF mixture; (C) separation of the I-HF mixture components by cooling at <-10° with an optional HF recycle to step A. Subsequently, the I may be converted into dichlorofluoroacetyl chloride by I hydrolysis with water followed by chlorination of the free acid with thionyl chloride in the presence of catalytic quantities of pyridine.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1993:87792 CAPLUS
DN 118:87792
TI The role of d functions in correlated wave functions: main group molecules
AU Magnusson, Eric
CS Dep. Chem., Univ. New South Wales, Campbell, 2600, Australia
SO Journal of the American Chemical Society (1993), 115(3), 1051-61
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB Large d function contributions to Hartree-Fock wave functions of S- and P-containing mols. are often cited as evidence for hypervalent spd hybridization and for violations of the octet rule. Recent work on hypercoordinate mols. invalidates this interpretation, but the possibility remains that hypervalent bonding may be facilitated by d orbital involvement in correlated wave functions. A large sample of mols. of the first- and second-row elements were studied by electronic structure theory at correlated levels and the d function contributions compared with results obtained at the Hartree-Fock level. Whether mols. are hypercoordinate or not, d functions added to the basis set provide a fairly constant 52 kJ m-1 of the MP4 correlation extra energy per valence shell electron pair. The d functions in the MP4 correction to Hartree-Fock wave functions neither polarize the wave function nor act as valence d "orbitals". They are correlating functions, their effects are largely atom-centered, and their major role is to provide angular

correlation. By contrast, supplementary d functions in the Hartree-Fock part of the wave function are polarizing functions, the effects of which are concentrated in the overlap regions. The d functions in these two roles provide a computationally convenient way to remove the restrictions of the small-basis Hartree-Fock model, but neither is consistent with the idea of a valence role for d orbitals in main group mols. or of an expanded octet.

L12 ANSWER 3 OF 4 CA COPYRIGHT 2004 ACS on STN
AN 131:75256 CA
TI Process and catalysts for preparing dichlorofluoroacetyl halides from trichloroacetyl halide
IN Gavezotti, Piero; Abusleme, Julio A.; Tortelli, Vito
PA Ausimont S.p.A., Italy
SO Eur. Pat. Appl., 6 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 928783	A1	19990714	EP 1998-124605	19981223
	EP 928783	B1	20020828		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	IT 1298091	B1	19991220	IT 1998-MI13	19980109
	US 6166252	A	20001226	US 1999-226121	19990107
	JP 11263744	A2	19990928	JP 1999-4103	19990111
PRAI	IT 1998-MI13	A	19980109		

AB Dichlorofluoroacetyl fluoride (I) is prepared in high yield and selectivity by: (A) **fluorination** with hydrofluoric acid of trichloroacetyl halides (e.g., trichloroacetyl chloride) in a fixed or fluidized tubular-bed reactor filled with **fluorination** catalysts (e.g., Cr2O3) and having a temperature profile between the inlet of the reactants and the outlet of the reaction products of 175-275°; (B) distillation of the reaction products with trichloroacetyl fluoride recycle and recovery of a I-HF mixture; (C) separation of the I-HF mixture components by cooling at <-10° with an optional HF recycle to step A. Subsequently, the I may be converted into dichlorofluoroacetyl chloride by I hydrolysis with water followed by chlorination of the free acid with thionyl chloride in the presence of catalytic quantities of pyridine.
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 4 CA COPYRIGHT 2004 ACS on STN
AN 118:87792 CA
TI The role of d functions in correlated wave functions: main group molecules
AU Magnusson, Eric
CS Dep. Chem., Univ. New South Wales, Campbell, 2600, Australia
SO Journal of the American Chemical Society (1993), 115(3), 1051-61
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA English
AB Large d function contributions to Hartree-Fock wave functions of S- and P-containing mols. are often cited as evidence for hypervalent spd hybridization and for violations of the octet rule. Recent work on hypercoordinate mols. invalidates this interpretation, but the possibility remains that hypervalent bonding may be facilitated by d orbital involvement in correlated wave functions. A large sample of mols. of the first- and second-row elements were studied by electronic structure theory at correlated levels and the d function contributions compared with results obtained at the Hartree-Fock level. Whether mols. are hypercoordinate or not, d functions added to the basis set provide a fairly constant 52 kJ m-1 of the MP4 correlation extra energy per valence

shell electron pair. The d functions in the MP4 correction to Hartree-Fock wave functions neither polarize the wave function nor act as valence d "orbitals". They are correlating functions, their effects are largely atom-centered, and their major role is to provide angular correlation. By contrast, supplementary d functions in the Hartree-Fock part of the wave function are polarizing functions, the effects of which are concentrated in the overlap regions. The d functions in these two roles provide a computationally convenient way to remove the restrictions of the small-basis Hartree-Fock model, but neither is consistent with the idea of a valence role for d orbitals in main group mols. or of an expanded octet.

L15 ANSWER 1 OF 9 USPATFULL on STN
AN 2004:82365 USPATFULL
TI Bdellosomes
IN Fricker, Gerd, Staufen, GERMANY, FEDERAL REPUBLIC OF
Flaig, Rudiger Marcus, Heidelberg, GERMANY, FEDERAL REPUBLIC OF
PI US 2004062815 A1 20040401
AI US 2003-312441 A1 20030804 (10)
WO 2001-EP7454 20010629
PRAI DE 2000-10030786 20000629
DE 2000-10053811 20001030
DE 2001-118312 20010411
DE 2001-118852 20010417
DT Utility
FS APPLICATION
LREP MICHAEL BEST & FRIEDRICH, LLP, 100 E WISCONSIN AVENUE, MILWAUKEE, WI, 53202
CLMN Number of Claims: 38
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 3296
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to solid particles for transportation of pharmaceutically active substances, to processes for the preparation thereof, to medicinal drugs containing said particles, and to the use of said particles for various specific indications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 2 OF 9 USPATFULL on STN
AN 2004:58236 USPATFULL
TI Preparation of 3-acyloxy-2-methylbenzoic acids
IN Scherer, Johannes, Leverkusen, GERMANY, FEDERAL REPUBLIC OF
Behre, Horst, Odenthal, GERMANY, FEDERAL REPUBLIC OF
Muller-Hauck, Friedrich, Bendorf, GERMANY, FEDERAL REPUBLIC OF
PI US 2004044243 A1 20040304
AI US 2003-458093 A1 20030610 (10)
PRAI DE 2002-10226219 20020613
DT Utility
FS APPLICATION
LREP BAYER CHEMICALS CORPORATION, PATENT DEPARTMENT, 100 BAYER ROAD, PITTSBURGH, PA, 15205-9741
CLMN Number of Claims: 16
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 548
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to an improved process for preparing 3-acyloxy-2-methylbenzoic acids by heating substituted naphthalenes in the presence of alkali metal hydroxides and subsequently acylating.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 3 OF 9 USPATFULL on STN
AN 2003:319552 USPATFULL
TI Process for producing optically active 3-halogenocarboxylic acid ester and 3-azidocarboxylic acid ester
IN Amano, Akira, Hiratsuka-shi, JAPAN
Igarashi, Daisuke, Hiratsuka-shi, JAPAN
Miura, Takashi, Tokyo, JAPAN
PI US 2003225301 A1 20031204
AI US 2003-383866 A1 20030310 (10)
PRAI JP 2002-65728 20020311
JP 2002-103547 20020405

DT Utility
FS APPLICATION
LREP KUBOVCIK & KUBOVCIK, SUITE 710, 900 17TH STREET NW, WASHINGTON, DC, 20006
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1793
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process for producing an optically active 3-azide-carboxylic acid ester by reacting an optically active 3-hydroxycarboxylic acid ester and a thionyl halide in the presence of a basic substance in an organic solvent to produce an optically active 3-halogenocarboxylic acid ester which is then reacted with an azide salt represented by the formula: MN.sub.3 (wherein M is an alkaline metal) in water or a mixture of water and a water soluble organic solvent.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L15 ANSWER 4 OF 9 USPATFULL on STN
AN 2002:41107 USPATFULL
TI Process for fabricating optical fiber
IN Mandich, Mary Louise, Martinsville, NJ, UNITED STATES
Reents, William David, JR., Middlesex, NJ, UNITED STATES
PI US 2002023466 A1 20020228
AI US 2001-912129 A1 20010724 (9)
RLI Continuation of Ser. No. US 1998-109827, filed on 2 Jul 1998, PENDING
DT Utility
FS APPLICATION
LREP Docket Administrator, Lucent Technologies, Inc., Room 3J-219, 101 Crawfords Corner Road, Holmdel, NJ, 07733-3030
CLMN Number of Claims: 33
ECL Exemplary Claim: 1
DRWN 1 Drawing Page(s)
LN.CNT 777
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Fiber is drawn from a preform comprising a silica body, e.g., a sol-gel derived overcladding or substrate tube. Prior to sintering, the body is treated with a gaseous mixture containing one or more non-oxygenated sulfur halides, to **remove** and/or reduce the size of refractory oxide particles, and/or dehydroxylate the body. **Removal** of metal oxide particles or reduction in their size contributes to drawing of optical fiber exhibiting desirable strength, since such particles act as initiation sites for breakage. Advantageously, the halides include sulfur chlorides, which provide desirable improvements compared to treatment by oxygenated sulfur chlorides such as thionyl chloride (SOCl.sub.2).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'HOME' ENTERED AT 17:15:09 ON 26 APR 2004)

FILE 'REGISTRY' ENTERED AT 17:15:51 ON 26 APR 2004

L1 1 S PHOSGENE/CN
L2 0 S THIONYLCHLORIDE/CN
L3 1 S THIONYL CHLORIDE/CN
L4 1 S WATER/CN

FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 17:16:40 ON 26 APR 2004

L5 331 S L1 AND L4
L6 234 S L3 AND L4
L7 27 S L5 AND FLUORIN?
L8 32 S L6 AND FLUORIN?
L9 10 S L7 AND HYDROGEN FLUORIDE
L10 5 DUP REM L9 (5 DUPLICATES REMOVED)
L11 32 S L8 NOT L10
L12 4 S L11 AND HYDROGEN FLUORIDE
L13 11 S L11 AND REMOV?
L14 10 DUP REM L13 (1 DUPLICATE REMOVED)
L15 9 S L14 NOT L12

L17 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:83178 CAPLUS
DN 112:83178
TI Reportable quantity adjustments; delisting of ammonium thiosulfate
CS United States Environmental Protection Agency, Washington, DC, 20460, USA
SO Federal Register (1989), 54(155), 33426-84, 14 Aug 1989
CODEN: FEREAC; ISSN: 0097-6326
DT Journal
LA English
AB Under the Federal Comprehensive Environmental Response, Compensation, and Liability Act, the EPA is promulgating final reportable quantities (RQ) for 258 hazardous substances and hazardous waste streams. NH4 thiosulfate is **removed** from the list of hazardous substances since the median lethal concentration is well above 500 mg/L for aquatic toxicity. Also included in this final rule is replacement of the registered trademark Gelthane with the generic name difocal, as several companies manufacture this substance.

L17 ANSWER 2 OF 10 USPATFULL on STN
AN 2002:133183 USPATFULL
TI Method for **removing** a halogen series gas
IN Hirano, Hachiro, Tokyo, JAPAN
Mori, Yoichi, Kitakyushu-shi, JAPAN
Kawabe, Yoshikatsu, Ama-gun, JAPAN
PA Asahi Glass Company, Limited, Tokyo, JAPAN (non-U.S. corporation)
PI US 2002068032 A1 20020606
US 6685901 B2 20040203
AI US 2001-986587 A1 20011109 (9)
PRAI JP 2000-343696 20001110
JP 2001-124231 20010423
JP 2001-124232 20010423
JP 2001-202977 20010704
JP 2001-198649 20010629
DT Utility
FS APPLICATION
LREP OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC, FOURTH FLOOR, 1755 JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 976
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method for **removing** a halogen series gas, which comprises bringing a halogen series gas comprising a halogen element or a halogen compound into contact with a granulated product, wherein the granulated product is obtained by granulating a powder of a hydrogencarbonate having a mean particle diameter of primary particles of from 10 to 500 μm, and has a mean particle diameter of from 0.5 to 20 mm and an average hardness as defined below:

in a case where the granulated product has a mean particle diameter of at least 0.5 mm and less than 1.0 mm, the average hardness of granulated product particles having particle diameters of at least 0.5 mm and less than 1.0 mm is at least 1 N;

in a case where the granulated product has a mean particle diameter of at least 1.0 mm and less than 1.5 mm, the average hardness of granulated product particles having particle diameters of at least 1.0 mm and less than 1.5 mm is at least 4 N;

in a case where the granulated product has a mean particle diameter of at least 1.5 mm and less than 2.0 mm, the average hardness of granulated product particles having particle diameters of at least 1.5 mm and less

than 2.0 mm is at least 10 N; and

in a case where the granulated product has a mean particle diameter of from 2.0 mm to 20 mm, the average hardness of granulated product particles having particle diameters of at least 2.0 mm is at least 30 N.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 3 OF 10 USPATFULL on STN
AN 2001:134309 USPATFULL
TI Process for the preparation of 3,5-bis(trifluoro-methyl)-benzoyl chlorides and novel 3,5-bis(tri-halogenomethyl)-and 3,5-dimethylbenzoyl halides
IN Marhold, Albrecht, Leverkusen, Germany, Federal Republic of
Stolting, Jorn, Koln, Germany, Federal Republic of
PI US 2001014759 A1 20010816
US 6420601 B2 20020716
AI US 2001-769797 A1 20010125 (9)
PRAI DE 2000-10004717 20000203
DT Utility
FS APPLICATION
LREP BAYER CORPORATION, PATENT DEPARTMENT, 100 BAYER ROAD, PITTSBURGH, PA, 15205
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 419
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB 3,5-Bis(trifluoromethyl)benzoyl chlorides optionally substituted with **fluorine** or chlorine are advantageously prepared by converting 3,5-dimethylbenzoic acids optionally substituted with **fluorine** or chlorine into the corresponding acid chlorides; completely free-radically chlorinating said chlorides in the side chains, giving 3,5-bis(trichloromethyl)benzoyl chlorides optionally substituted by **fluorine** or chlorine; **fluorinating** the latter with anhydrous hydrogen fluoride and/or antimony pentafluoride, giving 3,5-bis(trifluoromethyl)benzoyl fluorides optionally substituted with **fluorine** or chlorine; and then reacting the 3,5-bis(trifluoromethyl)benzoyl fluorides with silicon tetrachloride in the presence of a further Lewis acid. Some of the 3,5-bis(trihalogenomethyl) and 3,5-dimethylbenzoyl halides which arise as intermediates are novel compounds.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 4 OF 10 USPATFULL on STN
AN 1998:1264 USPATFULL
TI Fluid storage and delivery system comprising high work capacity physical sorbent
IN Tom, Glenn M., New Milford, CT, United States
McManus, James V., Danbury, CT, United States
Olander, W. Karl, Tampa, FL, United States
PA Advanced Technology Materials, Inc., Danbury, CT, United States (U.S. corporation)
PI US 5704967 19980106
AI US 1996-650633 19960520 (8)
RLI Continuation-in-part of Ser. No. US 1995-322224, filed on 13 Oct 1995, now patented, Pat. No. US 5518528
DT Utility
FS Granted
EXNAM Primary Examiner: Spitzer, Robert
LREP Hultquist, Steven J., Elliott, Janet R.
CLMN Number of Claims: 26
ECL Exemplary Claim: 1

DRWN 8 Drawing Figure(s); 8 Drawing Page(s)
LN.CNT 1562
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An adsorption-desorption apparatus, for storage and dispensing of a sorbable gas, wherein a physical sorbent medium bearing the adsorbed gas to be selectively dispensed is delivered by pressure differential desorption and/or thermal desorption of the sorbate gas from the sorbent material. The sorbent material preferably comprises a material which is characterized by a Sorbent Working Capacity, measured for arsine at 40 Torr and at 650 Torr, of at least 50 grams arsine per liter of bed of the sorbent material.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 5 OF 10 USPATFULL on STN
AN 96:25081 USPATFULL
TI Process for the preparation of 2-halogeno-pyridine derivatives
IN Rivadeneira, Eric, Leverkusen, Germany, Federal Republic of
Jelich, Klaus, Wuppertal, Germany, Federal Republic of
PA Bayer Aktiengesellschaft, Leverkusen, Germany, Federal Republic of (non-U.S. corporation)
PI US 5502194 19960326
AI US 1994-220620 19940331 (8)
RLI Continuation-in-part of Ser. No. US 1994-205121, filed on 28 Feb 1994 which is a continuation-in-part of Ser. No. US 1993-15715, filed on 9 Feb 1993, now abandoned
PRAI DE 1992-4204920 19920219
DE 1992-4212595 19920415
DE 1993-4311247 19930406
DT Utility
FS Granted
EXNAM Primary Examiner: Rotman, Alan L.
LREP Sprung Horn Kramer & Woods
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 520
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process for the preparation of a 2-halogeno-pyridine of the formula ##STR1## in which X represents halogen and

Y represents halogen, nitro, formyl, cyano, carboxyl, carbamoyl, alkyl, halogenoalkyl, alkoxyalkyl, dialkoxyalkyl, alkoxycarbonyl, alkylaminocarbonyl or dialkylaminocarbonyl,

which comprises in a first stage reacting a pyridine 1-oxide of the formula ##STR2## with an organic nitrogen base A and an electrophilic compound, optionally in the presence of a diluent, to produce a compound of the formula ##STR3## in which A represents the radical of an organic nitrogen base, and

Z.sup.- represents an anion formed from an electrophilic compound,

optionally isolating and optionally purifying the compound of the formula (III).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 6 OF 10 USPATFULL on STN
AN 95:82430 USPATFULL
TI **Fluorinated** methyl ethers
IN Krespan, Carl G., Wilmington, DE, United States
Rao, V. N. Mallikarjuna, Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)
PI US 5449837 19950912
AI US 1994-299129 19940902 (8)
RLI Division of Ser. No. US 1993-85843, filed on 30 Jun 1993, now patented, Pat. No. US 5382704
DT Utility
FS Granted
EXNAM Primary Examiner: Richter, Johann; Assistant Examiner: Peabody, John
CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 477
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process is disclosed for producing a **fluorinated** ether of the formula R.sub.2 CHOCF.sub.2 A, where A is Cl or F, and each R is H, (CF.sub.2).sub.n Cl, (CF.sub.2).sub.n F or (CF.sub.2).sub.n H (n is an integer from 1 to 10) by reacting a first reactant of the formula R.sub.2 CHOY where Y is H, COF, COCl or COOCHR.sub.2 (R is as defined above), a second reactant selected of the formula CZ.sub.2 Cl.sub.2 or COZ.sub.2 where each Z is independently Cl or F (provided that when A is Cl, the second reactant is CZ.sub.2 Cl.sub.2), and HF; and recovering the **fluorinated** ether from the reaction products. Also disclosed are bis-ethers of the formula (CF.sub.3 (CF.sub.2).sub.m).sub.2 CHOCF.sub.2 OCH (CF.sub.2).sub.m CF.sub.3).sub.2, where m is an integer of 0 to 3, which can also be produced by the process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 7 OF 10 USPATFULL on STN
AN 95:13363 USPATFULL
TI Method for continuously recovering metals using a dual zone chemical reactor
IN Bronson, Mark C., Livermore, CA, United States
PA The United States of America as represented by the United States Department of Energy, Washington, DC, United States (U.S. government)
PI US 5389123 19950214
AI US 1993-87549 19930708 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Mai, Ngoclan T.
LREP Sartorio, Henry, Gaither, Roger S., Moser, William R.
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN 6 Drawing Figure(s); 6 Drawing Page(s)
LN.CNT 481
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A dual zone chemical reactor continuously processes metal-containing materials while regenerating and circulating a liquid carrier. The starting materials are fed into a first reaction zone of a vessel containing a molten salt carrier. The starting materials react to form a metal product and a by-product that dissolves in the molten salt that flows to a second reaction zone in the reaction vessel. The second reaction zone is partitioned from, but in fluid communication with, the first reaction zone. The liquid carrier continuously circulates along a pathway between the first reaction zone and the second reaction zone. A reactive gas is introduced into the second reaction zone to react with

the reaction by-product to generate the molten salt. The metal product, the gaseous waste products, and the excess liquid carrier are **removed** without interrupting the operation of the reactor. The design of the dual zone reactor can be adapted to combine a plurality of liquid carrier regeneration zones in a multiple dual zone chemical reactor for production scale processing.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 8 OF 10 USPATFULL on STN
AN 95:6046 USPATFULL
TI **Fluorinated** methyl ethers
IN Krespan, Carl G., Wilmington, DE, United States
Rao, V. N. Mallikarjuna, Wilmington, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)
PI US 5382704 19950117
AI US 1993-85843 19930630 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Mars, Howard T.
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 503
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A process is disclosed for producing a **fluorinated** ether of the formula R.sub.2 CHOCF.sub.2 A, where A is Cl or F, and each R is H, (CF.sub.2).sub.n Cl, (CF.sub.2).sub.n F or (CF.sub.2).sub.n H (n is an integer from 1 to 10) by reacting a first reactant of the formula R.sub.2 CHOY where Y is H, COF, COCl or COOCHR.sub.2 (R is as defined above), a second reactant selected of the formula CZ.sub.2 Cl.sub.2 or COZ.sub.2 where each Z is independently Cl or F (provided that when A is Cl, the second reactant is CZ.sub.2 Cl.sub.2), and HF; and recovering the **fluorinated** ether from the reaction products. Also disclosed are bis-ethers of the formula (CF.sub.3 (CF.sub.2).sub.m).sub.2 CHOCF.sub.2 OCH(CF.sub.2).sub.m CF.sub.3).sub.2, where m is an integer of 0 to 3, which can also be produced by the process.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 9 OF 10 USPATFULL on STN
AN 92:14795 USPATFULL
TI Preparation of anhydrous niobium and tantalum pentafluorides
IN Nappa, Mario J., Newark, DE, United States
PA E. I. Du Pont de Nemours and Company, Wilmington, DE, United States (U.S. corporation)
PI US 5091168 19920225
AI US 1990-567815 19900815 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Niebling, John; Assistant Examiner: Bolam, Brian M.
LREP Stevenson, Robert B., Boyer, Michael K.
CLMN Number of Claims: 12
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 449
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of producing an anhydrous niobium or tantalum pentafluoride involving reacting the corresponding pentoxide or oxyhalide with an excess of anhydrous hydrogen fluoride in the presence of a sufficient dehydrating agent (e.g., COCl.sub.2, SOCl.sub.2 or SO.sub.2 Cl.sub.2) to react with any **water** formed. Such a process is useful to

produce a catalyticallyactive anhydrous niobium or tantalum pentafluoride in essentially a single liquid phase reaction step.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L17 ANSWER 10 OF 10 USPATFULL on STN
AN 89:67239 USPATFULL
TI Process for the preparation of ultrapure heavy metal fluorides
IN Pastor, Ricardo C., Manhattan Beach, CA, United States
Gorre, Luisa E., Oxnard, CA, United States
PA Hughes Aircraft Company, Los Angeles, CA, United States (U.S. corporation)
PI US 4857293 19890815
AI US 1987-109360 19871015 (7)
RLI Continuation of Ser. No. US 1984-686773, filed on 27 Dec 1984, now abandoned
DT Utility
FS Granted
EXNAM Primary Examiner: Doll, John; Assistant Examiner: Russel, Jeffrey Edwin
LREP Denson-Low, Wanda K.
CLMN Number of Claims: 7
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 574
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides a method for the preparation of ultrapure active metal fluorides of increased purity from their metal oxides by reacting an active metal with a predetermined amount of HF(aq) to form a solid reaction product which is dried under controlled heating to form a hydrated fluoride. This hydrated active metal fluoride is then subjected to reactive atmosphere processing comprising hydrofluoric acid vapor in a CO.sub.2 reactive carrier gas and a selected halide compound in the gas phase for a predetermined period of time to further increase anion purity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

L24 ANSWER 9 OF 18 USPATFULL on STN
AN 94:97239 USPATFULL
TI Removal of water from a phosgene recycle stream
IN Schwarz, Hans V., Baton Rouge, LA, United States
Brunner, Erwin, Weinheim, Germany, Federal Republic of
PA BASF Corporation, Parsippany, NJ, United States (U.S. corporation)
PI US 5362399 19941108
AI US 1992-998491 19921230 (7)
DT Utility
FS Granted
EXNAM Primary Examiner: Cintins, Ivars
LREP Carmen, Dennis V.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 374
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention relates to a process for **removing water** traces from a liquid phosgene stream in chemical processes which employ a phosgenation step. Water traces are removed from a liquid phosgene stream containing at least 60 weight percent phosgene by contacting the stream with a strongly basic macroreticular anion exchange resin which catalyzes the reaction between phosgene and the water traces.

L24 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3
AN 1985:423032 CAPLUS
DN 103:23032
TI Anion exchanger and method for **removing water** from phosgene-containing organic solvents
IN Gallus, Manfred; Lange, Peter Michael; Mitschker, Alfred; Mueller, Hans Juergen; Wollweber, Hans Joachim
PA Bayer A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 25 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3333720	A1	19850328	DE 1983-3333720	19830917
	DE 3333720	C2	19870820		
PRAI	DE 1983-3333720		19830917		

AB An organic solvent containing phosgene [**75-44-5**] and water is contacted with an anion exchanger which catalyzes the reaction of phosgene with water to give CO2 and HCl, giving a water-free solvent suitable for recycle in the phosgenation of amines to give isocyanates. The anion exchanger is an aminomethylated crosslinked styrene polymer or a quaternized derivative prepared from the polymer and a compound such as 2,6-dichlorobenzyl chloride (I). Thus, o-dichlorobenzene (II) [95-50-1] containing 2.8% phosgene and 85 ppm H2O was passed through a column containing an anion exchanger prepared by quaternizing an aminomethylated divinylbenzene-styrene copolymer with I. The II obtained from the column contained no H2O.

L33 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:255547 CAPLUS
DN 122:109939
TI Reactive **removal** of **water** from a phosgene recycle stream in phosgenation reactions
IN Schwarz, Hans V.; Brunner, Erwin
PA BASF Corp., USA
SO U.S., 5 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5362399	A	19941108	US 1992-998491	19921230
PRAI	US 1992-998491		19921230		

AB Water traces are removed from a liquid phosgene stream containing ≥60 weight% phosgene by contacting the stream with a strongly basic macroreticular anion exchange resin which catalyzes the reaction between phosgene and water. The liquid phosgene stream results from manufacturing an isocyanate with phosgene in the presence of a solvent, removing gaseous phosgene from the isocyanate and solvent, liquefying the gaseous phosgene to form said liquid phosgene stream. The liquid phosgene stream is contacted with a macroreticular strongly basic anionic exchange resin (e.g., Amberlyst A 26) having a quartenary ammonium group attached to a crosslinked copolymer through a methylene group -[C6H4-CH2N(R)2R+A-] where each R is sep. a substituted or unsubstituted C1-22 alkyl or alkenyl group, and A- is a halide, hydroxide, or alcoholate.

L33 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:511939 CAPLUS
DN 121:111939
TI **Removal** of **water** in the purification of chlorphenesin carbamate
IN Kishimoto, Atsumi; Kumashiro, Mitsugi; Katsura, Tadashi
PA Sumika Fine Chemicals Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06049017	A2	19940222	JP 1992-223371	19920729
PRAI	JP 1992-223371		19920729		

AB Water in the title compound (I) is azeotropically stripped in the presence of ≥1 stabilizer selected from salts of Fe, Ni, Co, Cu, and Zn and NH4 salts of mineral acids. Thus, a mixture of I 40, H2O 10, toluene 200, and Fe2(NH4)3 0.04 g was heated with azeotropic removal of the H2O, mixed with 6 g MeOH, heated with 1 g activated carbon and 1.5 g celite at 80-85°, filtered, and cooled to give crystals containing 99.98% I free of isomerization and decomposition products.

L33 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:80837 CAPLUS
DN 120:80837
TI **Water** decomposing agent, decomposition and **removal** of **water** in air and **water** adsorbed in the surface of materials, and apparatus therefor
IN Tadenuma, Katsuyoshi
PA Tadenuma Katsuyoshi, Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05213604	A2	19930824	JP 1991-177299	19910622
PRAI JP 1991-177299		19910622		

AB Cl-containing silane compds. are used as the H2O decomposing agent. The agent decomps. H2O in air or adsorbed into the material surface to volatile substances. In examples, Me2SiCl2, Me2CCl2, B2H6, and COCl2 were used as the H2O decomposing agent. The apparatus for decomposition-removal of H2O is also described.

L33 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1973:97115 CAPLUS
DN 78:97115
TI **Removal** of **water** from recycled gases in the manufacture of organic cyanates by reaction of phosgene with amines
IN Mason, Roger Stuttard; Thorpe, David
PA Imperial Chemical Industries Ltd.
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 2233036	A1	19730125	DE 1972-2233036	19720705
GB 1397546	A	19750611	GB 1971-31416	19720622
BE 785638	A1	19721229	BE 1972-119326	19720629
IT 968398	A	19740320	IT 1972-26466	19720630
FR 2144759	A1	19730216	FR 1972-24119	19720704
NL 7209380	A	19730109	NL 1972-9380	19720705
PRAI GB 1971-31416		19710705		

AB H2O, causing losses and contamination of the isocyanates and corrosion damage to apparatus, was removed from recycle gases containing PhCl or o-Cl2C6H4 (solvent) and COCl2 by passing the gases through a bed containing active C or anhydrous CaSO4 (Drierite) as catalysts for a reaction between COCl2 and H2O at temps. above the b.p. of the solvents. Thus, a mixture containing COCl2 50, PhCl 100, and N (containing 2 + 104 volume ppm H2O) 50 ml/min was passed through Drierite 64 hr at 110° to give a mixture containing 40 volume ppm H2O. Mild steel immersed in the condensate of this mixture at 100° showed negligible corrosion, compared with a corrosion rate 10 mm/year for a gas mixture not treated with Drierite.

L33 ANSWER 5 OF 5 CA COPYRIGHT 2004 ACS on STN
AN 103:23032 CA
TI Anion exchanger and method for **removing water** from phosgene-containing organic solvents
IN Gallus, Manfred; Lange, Peter Michael; Mitschker, Alfred; Mueller, Hans Juergen; Wollweber, Hans Joachim
PA Bayer A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 25 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3333720	A1	19850328	DE 1983-3333720	19830917
DE 3333720	C2	19870820		
PRAI DE 1983-3333720		19830917		

AB An organic solvent containing phosgene **[75-44-5]** and water is contacted with an anion exchanger which catalyzes the reaction of phosgene with water to give CO2 and HCl, giving a water-free solvent suitable for recycle in the phosgenation of amines to give isocyanates. The anion exchanger is an aminomethylated crosslinked styrene polymer or a quaternized derivative prepared from the polymer and a compound such as 2,6-dichlorobenzyl chloride (I). Thus, o-dichlorobenzene (II) [95-50-1] containing 2.8% phosgene and 85 ppm H2O was passed through a column containing an anion exchanger prepared by quaternizing an aminomethylated divinylbenzene-styrene copolymer with I. The II obtained from the column contained no H2O.

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      (FILE 'HOME' ENTERED AT 16:30:18 ON 26 APR 2004)

      FILE 'STNGUIDE' ENTERED AT 16:30:23 ON 26 APR 2004

      FILE 'HOME' ENTERED AT 16:30:27 ON 26 APR 2004

      FILE 'REGISTRY' ENTERED AT 16:30:33 ON 26 APR 2004
L1              STRUCTURE UPLOADED
L2           50 S L1
L3        37861 S L1 FUL

      FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 16:31:16 ON 26 APR 2004
L4      5474709 S WATER
L5          122 S L2
L6           15 S L4 AND L5
L7            6 S L6 AND FLUORIN?
L8            4 DUP REM L7 (2 DUPLICATES REMOVED)

      FILE 'REGISTRY' ENTERED AT 16:34:50 ON 26 APR 2004
L9         1020 S PHOSGENE
L10           1 S PHOSGENE/CN
L11           1 S HYDROGEN FLUORIDE/CN

      FILE 'CAPLUS, USPATFULL, CA, CAOLD' ENTERED AT 16:36:25 ON 26 APR 2004
L12        2854 S L4 AND L10
L13          60 S L12 AND L11
L14          30 S L13 AND FLUORIN?
L15          11 S L14 AND REMOV?
L16          10 DUP REM L15 (1 DUPLICATE REMOVED)
L17          10 S L16 NOT L8
L18       15897 S REMOVING WATER
L19          21 S L18 AND L10
L20          21 S L19 NOT L17
L21           0 S L20 AND L11
L22           0 S L21 AND FLUORIN?
L23           1 S L20 AND FLUORIN?
L24          18 DUP REM L20 (3 DUPLICATES REMOVED)
L25           0 S L24 AND REACTIVE AGENT
L26       28705 S REMOV? (S) WATER/TI
L27     1143632 S WATER/TI
L28           0 S L26 AND L2
L29          11 S L26 AND L10
L30           9 S L29 NOT L24
L31           9 S L30 NOT L17
L32           5 DUP REM L31 (4 DUPLICATES REMOVED)
L33           5 S L32 NOT L8

=> d l1
L1 HAS NO ANSWERS
L1              STR
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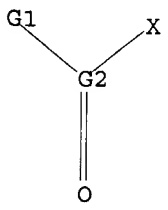


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G1 H,X,Ak
G2 C,S
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